SALTGRASS
PRINTMAKERS

Fine Art Printing Techniques

Fine arts prints are produced with a number of techniques, all of which involve transferring ink to paper, usually under pressure, to produce the final print. To make a print the artist produces a *matrix* on which an image is developed. Ink is applied to the matrix and then transferred from the matrix to the paper to make the print. You should be able to see prints using many of these techniques in this show. Look at the description to see how the print was made, and then look carefully at the print to see if you can see how the printmaking technique influenced the look of the final print.

Traditional printmaking techniques include:

- **Intaglio:** These techniques involve lines or grooves incised into a matrix (usually a sheet of metal). The ink is pushed into the grooves and wiped off the surface of the matrix. When a sheet of paper is pressed with very high pressure onto the matrix, it picks up the ink from the grooves to make the image. The word intaglio (pronounced in-tall-ee-o) comes from the Italian for “in recess” or “incise.” Examples of intaglio techniques include:
    - **Etching** – grooves are produced in the metal matrix using acid. These grooves hold ink and produce the inked lines in the final print.
    - **Engraving** – grooves are produced in the metal matrix using sharp cutting tools instead of acid. Paper currency is produced via engraving.
    - **Aquatint** – fine patterns are produced in the metal matrix using rosin dust and acid etching so that shades of grey can be produced in the print.
    - **Mezzotint** – A process where the entire plate is covered with a fine texture that will print black, and that texture is removed where the artist wants lighter shades.

- **Relief:** These are techniques where the matrix is again produced with grooves, but the ink is applied to, and printed from, the top surface of the matrix and not from inside the grooves. The matrix is generally softer than metal and is cut by hand using knives, gouges, and other cutting tools. Relief techniques include:
    - **Woodcut –** The matrix is made from wood. The image is cut into the wood using cutting tools. The top surface that is not cut will be covered with ink and will print the image onto the paper. The cut-away grooves will not hold ink and will be white on the paper.
    - **Linoleum cut –** The same as woodcut but using Linoleum for the matrix. Linoleum is a smoother surface than most wood enabling very even colors in the print.

    - **Letterpress –** Relief printing where text is printed. Prior to the invention of modern commercial printing technology, books were printed as relief letterpress. Gutenberg used this technique.

- **Planographic:** These techniques don't use grooves in the matrix at all. The image is drawn or otherwise produced on a flat surface, and this image is transferred to the paper. Some planographic techniques include:
    - **Lithography –** In this technique an image is drawn or produced on a flat matrix, usually either a piece of special limestone or a metal plate. The image is produced with a greasy substance and chemically treated to be durable. The matrix is then wetted, and inked with greasy ink. Because grease and water do not mix, the ink only sticks to the inky image and not to the other (wet) parts of the matrix. The image is then transferred to the paper under pressure.
    - **Monoprints –** In image is drawn, painted, or otherwise produced on a flat matrix (usually a metal or plastic plate). While the ink or paint is still wet, a piece of paper is placed on top of the matrix and the image is transferred to the paper under pressure.

- **Stencil:** In these techniques an image is produced by blocking out parts of a porous matrix. Ink is then applied to the entire matrix, but only transfers to the paper through the non-blocked parts. Stencil techniques include:
    - **Stencil –** Cut outs are cut in the matrix (usually paper or plastic). Ink is applied to the entire stencil but only transfers to the paper through the holes
    - **Screenprint –** In this technique a fine screen is used as the stencil. Parts of the screen are blocked out using a substance that blocks the holes in the screen. Ink is applied to the entire screen, but only squishes through the screen where it has not been blocked.

- **Computer Printing Technology:** Some modern print artists are exploring the use of computer printing techniques to produce original fine art prints. These printers use similar technology to your desktop computer printer, but often have special lightfast archival inks, or special color corrections that are only available in advanced devices. Can computer printers be used to produce original fine art original prints? There are many arguments on both sides. What do you think? Read the companion guide "What is an Original print?" associated with this show to help you think about this! Computer printer technology usually comes in two forms:
    - **Ink Jet:** In these types of printers extremely tiny drops of liquid ink are applied to the paper through tiny nozzles. Colors are produced by mixing tiny dots of a few primary colors onto the paper using halftone (regular dot) or dithering (random dot) techniques. Look at an ink jet print with a magnifying glass to see how this works. Ink jet printers that use special archival inks or special fine-dot technology sometimes use different trademarked terminology such as Iris or Giclée to differentiate it from standard desktop printers.
    - **Laser printing:** In these prints the "ink" is powdered pigment that is fused to the paper by heating. The image is transferred to the paper through an electrostatic charge that attracts the finely powdered pigment. This pigment is then fused to the paper. As with ink jet technology, colors are produced by combining small dots of a few primary colors.